

## CLAIMS

What is claimed is:

1. A process control method managing a semiconductor device manufacturing process, including an operation of a system with a plurality of sub-modules, comprising:  
diagnosing an operational state of the plurality of sub-modules prior to beginning the semiconductor device manufacturing process;  
checking a process condition of the system; and  
informing a user of operational states of the sub-modules and the process condition of the system.
2. The process control method according to claim 1, further comprising:  
diagnosing an operational state of I/O (input/output) devices of the sub-modules prior to beginning the semiconductor device manufacturing process; and  
informing the user of the operational state of the input/output devices of the sub-modules.
3. The process control method according to claim 1, wherein the diagnosing of the operational state of the plurality of sub-modules includes operating a diagnosis program module to operate a sub-module to perform a diagnosis program.
4. The process control method according to claim 1, wherein the checking the process condition of the system includes operating a performance diagnosis program module, to check a performance of the system, to perform the performance diagnosis program.
5. The process control method according to claim 1, further comprising checking whether the operational states of the sub-modules and the process condition are normal by comparing a predetermined normal operation value range with a value estimated from a result of the diagnoses of the sub-modules.
6. The process control method according to claim 1, further comprising selecting, by a user, which object or objects of a plurality of objects are to be diagnosed, prior to beginning the semiconductor device manufacturing process.

7. The process control method according to claim 1, wherein the diagnosing of the sub-modules includes diagnosing a performance condition of equipment based upon at least one of sampled voltage, currents, torques and operational speeds related to the equipment.

8. The process control method according to claim 7, wherein the equipment comprises system components, including various chambers, a conveyor, and a furnace, and parts of system components, including a valve, a pump, a controller, and a roller, in the semiconductor device manufacturing process.

9. The process control method according to claim 1, wherein the diagnosing of the operational state of the plurality of sub-modules includes selectively diagnosing some but not all of the plurality of sub-modules.

10. A system for making a semiconductor devices by managing a semiconductor device manufacturing process, including an operation of a system having a plurality of sub-modules, comprising:

- a module checking part diagnosing an operational state of at least one sub-module of the plural sub-modules;

- a process condition checking part diagnosing a process condition of the system;

- a result display displaying a diagnosis result of an object, of a plurality of objects of the system, to be diagnosed; and

- a controller controlling the module checking part and the process condition checking part to check the operational state of the one sub-module and the process condition of the system prior to beginning the semiconductor device manufacturing process and controlling the display of the result of the diagnosis in the result display.

11. The system for making a semiconductor device according to claim 10, further comprising an interface checking part checking an operational state of an I/O device of the one sub-module, wherein the controller controls the result display to display the result of diagnosis performed by the interface checking part.

12. The system for making a semiconductor device according to claim 10, wherein the controller permits a user to select the object or objects, of the plural objects, to be diagnosed.

13. The system for making a semiconductor device according to claim 12, wherein the user is permitted to select objects not to be diagnosed.

14. A computer-readable medium comprising computer readable code controlling a system to perform the method of claim 1.